

[0008] Other features will be in part apparent and in part pointed out hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a schematic front elevation of a compression garment of the present invention shown in an open, unwrapped configuration;

[0010] FIG. 2 is a schematic rear elevation of the compression garment;

[0011] FIG. 3 is a schematic front elevation of a bladder of the compression garment;

[0012] FIG. 4 is a separated perspective of a wrap of the compression garment;

[0013] FIG. 5 is a schematic front elevation of a second embodiment of a compression garment of the present invention shown in an open, unwrapped configuration;

[0014] FIG. 6 is a schematic front elevation of a bladder of the compression garment of FIG. 5;

[0015] FIG. 7 is a schematic front elevation of a third embodiment of a compression garment of the present invention shown in an open, unwrapped configuration;

[0016] FIG. 8 is an enlarged view of a portion of FIG. 7 showing details of a port arrangement;

[0017] FIG. 9 is a schematic front elevation of a bladder of the compression garment of FIG. 7; and

[0018] FIG. 10 is a separated perspective of the wrap of the compression garment.

[0019] Corresponding reference characters indicate corresponding parts throughout the drawings.

DETAILED DESCRIPTION OF THE DRAWINGS

[0020] Referring now to the drawings, and in particular to FIG. 1, a compression garment according to the present invention is generally indicated by the reference number 10. The compression garment 10 is used for compressing a body part such as a limb (e.g., a leg or arm). The compression garment 10 may be used to apply various types of compression therapy known in the art, such as intermittent compression therapy. The illustrated compression garment 10 is configured for application on a leg and has a “knee length” size, i.e., the compression garment extends generally from the ankle to below the knee. Other sizes and shapes of garments (e.g., “thigh length,” extending generally from the ankle to the thigh). Garments may be configured for application to other body parts without departing from the scope of the present invention.

[0021] The compression garment includes a wrap, generally indicated by the reference number 20, and a selectively inflatable bladder, generally indicated by the reference number 22. The wrap 20 is sized and shaped for wrapping around at least a portion of the limb. The wrap 20 includes a pocket, generally indicated by the reference number 26, which is sized and shaped for receiving the bladder 22 to hold the bladder against the limb. The wrap may be formed using various materials. For example, the wrap may be formed using various layers of non-woven material such as polyester. In some embodiments, the wrap is formed using fluid-impermeable material for reasons which will become apparent. Other types of materials may be used without departing from the scope of the present invention.

[0022] The wrap 20 includes one or more fasteners 24 for securing the wrap in position when wrapped around the limb. For example, as shown in FIG. 2, the fasteners 24 may

be hook fabric provided on an inner surface 20a of the wrap 20 for fastening to loop pile on an outside surface 20b of the wrap 20. Other types of fasteners such as snaps, buttons, clips, straps, magnets, and adhesives may be used without departing from the scope of the present invention.

[0023] FIG. 3 illustrates one embodiment of the bladder 22. The bladder 22 includes an inflatable hollow interior, generally indicated by the reference number 30. In the illustrated embodiment, the hollow interior 30 is divided into three chambers 30a, 30b, 30c. The bladder 22 includes a connector 34 in fluid communication with the three chambers 30a, 30b, 30c. The illustrated connector 34 includes three fluid conduits 34a, 34b, 34c, each in communication with respective chambers 30a, 30b, 30c. The connector 34 is connectable to a fluid supply line in communication with a fluid source for supplying fluid to the bladder (not shown).

[0024] The bladder 22 may be formed by joining sheets of fluid-impermeable material such as PVC in face to face relation. For example, the bladder 22 may be made using pliable PVC material having a thickness in a range from about 0.002 inches to about 0.020 inches. In one embodiment, the material may be 0.006 inches thick. The sheets may be joined by radiofrequency welding, heat welding, ultrasonic welding, or using other types of mechanical or chemical bonding processes. For example, the bladder illustrated in FIG. 3 may be formed by stacking two bladder sheets so their perimeters are generally aligned and forming a weld 40 around an edge margin to form the hollow interior 30 between the sheets. Welds 42a, 42b formed across the hollow interior 30 divide the hollow interior into the chambers 30a, 30b, 30c. The welds 40, 42a, 42b are formed across the fluid conduits 34a, 34b, 34c to seal the bladder sheets around the conduits but allow fluid communication between the chambers 30a, 30b, 30c and the connector 34 through the conduits. Other bladder configurations may be used without departing from the scope of the present invention. For example, the hollow interior 30 may have a different number of chambers, such as 1, 2, 4, 5, or more chambers. Moreover, different types of connectors and/or arrangements of fluid conduits may be used for connecting the hollow interior 30 in fluid communication with a fluid source (not shown).

[0025] The bladder 22 and pocket 26 are configured so the bladder may be inserted and removed from the pocket. This arrangement allows the bladder 22 to be interchangeable with other wraps and vice versa. For example, a bladder chosen for use may be selected from a variety of differently configured bladders based on the desired type of compression therapy. A single bladder may be reused in two, three, or more wraps for the same or multiple patients. Moreover, the bladders may be used in differently configured wraps. For example, a wrap may have multiple pockets, each for holding one or more bladders.

[0026] Referring again to FIG. 1, the pocket 26 includes a main opening 50 and a secondary opening 52. The main opening 50 is sized for passing the bladder 22 through it when inserting the bladder in the pocket 26 and removing the bladder from the pocket. The main opening 50 may have a length slightly longer than the width of the bladder 22 to permit the bladder to be conveniently inserted into the pocket 26. For example, the main opening 50 may be about 12, 14, 16, 18, 20, 22, 24, or more centimeters long. The secondary opening 52 is separate from the main opening 50